

WHAT IS CLAIMED IS:

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- 1 1. A method of providing key management comprising:
2 providing a server;
3 providing a client configured to be coupled to said server;
4 providing a trusted third party configured to be coupled to said client;
5 allowing said server to initiate a key management session with said client
 - 1 2. The method as described in claim 1 wherein said allowing said server to initiate
2 said key management session with said client comprises:
3 generating a trigger message at said server;
4 generating a nonce at said server;
5 conveying said trigger message and said nonce to said client.
 - 1 3. The method as described in claim 2 and further comprising:
2 receiving said trigger message and said nonce at said client;
3 generating a response message to said trigger message;
4 conveying said response message and a returned_nonce to said server.
 - 1 4. The method as described in claim 3 and further comprising:
2 predetermining an out-of-bounds value for said nonce to prevent an attacker from
3 simulating a client initiated key management session;
4 checking said nonce to determine whether the value of said nonce is said out-of-
5 bounds value.
 - 1 5. The method as described in claim 3 and further comprising:
2 confirming the value of said returned_nonce at said server; and
3 conveying a reply message from said client to said server.
 - 1 6. The method as described in claim 1 and further comprising:
2 receiving from said client a response message and a false_nonce at said server;
3 determining that said false_nonce is false;
4 disregarding said client response message.
 - 1 7. A method of providing key management in a Kerberos based system, said method
2 comprising:
3 providing a server;

- 4 providing a client configured to be coupled to said server;
5 providing a key distribution center configured to act as a trusted third party for
6 said client and said server;
7 initiating a key management session by said server with said client.
- 1 8. The method as described in claim 7 and further comprising:
2 generating a trigger message at said server;
3 generating a nonce at said server;
4 conveying said trigger message and said nonce to said client.
- 1 9. The method as described in claim 8 and further comprising:
2 receiving said trigger message and said nonce at said client;
3 generating a response message to said trigger message;
4 conveying said response message and a returned_nonce to said server.
- 1 10. The method as described in claim 9 and further comprising:
2 confirming the value of said returned_nonce at said server; and then
3 continuing with said key management session.
- 1 11. The method as described in claim 7 and further comprising:
2 receiving at said server a response message and a false_nonce from said client;
3 determining that said false_nonce does not match said nonce;
4 determining that said server did not initiate said key management session.
- 1 12. A method of initiating a key management session for a cable telephony adapter
2 (CTA and a Signaling Controller in an IP Telephony network, the method comprising:
3 providing said Signaling Controller;
4 providing said CTA configured to be coupled to said Signaling Controller;
5 providing a key distribution center (KDC);
6 generating a trigger message at said Signaling Controller;
7 generating a nonce at said Signaling Controller;
8 coupling said nonce with said trigger message;
9 transmitting said nonce coupled with said trigger message to said CTA;
10 generating a response message to said trigger message;
11 using the value of said nonce as the value of a returned_nonce;
12 coupling said response message with said returned_nonce;

09663426 " 092200

13 transmitting said returned_nonce and said response message to said Signaling
14 Controller;
15 comparing said returned_nonce to said nonce;
16 transmitting an AP reply in reply to said response message;
17 transmitting an SA recovered message to said Signalling Controller.

1 13. A method of conveying a key from a server to a client, comprising:
2 generating a wakeup message at said server;
3 generating a server_nonce at said server;
4 conveying said wakeup message and said nonce to said client;
5 generating an AP request message at said client;
6 conveying a client_nonce and said AP request message to said server;
7 confirming that said client_nonce conveyed with said AP request message
8 matches said server_nonce generated at said server;

1 14. A method of confirming that a message received by a server from a client was
2 triggered by the server:
3 receiving an AP request message from said client;
4 receiving a client_nonce from said client wherein said client_nonce is associated
5 with said AP request;
6 determining whether said client_nonce matches a nonce conveyed from said
7 server.

1 15. The method as described in claim 14 and further comprising:
2 determining that said client_nonce does not match said nonce conveyed from said
3 server; and
4 disregarding said AP request.

1 16. The method as described in claim 15 and further comprising:
2 awaiting at said client for a reply from said server to said AP request;
3 aborting said AP request session after a predetermined time period if no reply is
4 received from said server.

1 17. The method as described in claim 14 and further comprising:
2 determining that said client_nonce does match said nonce conveyed from said
3 server; and

4 generating an AP reply at said server to said AP request.

1 18. A system for providing key management in a Kerberos based system, said system
2 comprising:

3 a server;

4 a client configured to be coupled to said server;

5 a key distribution center configured to act as a trusted third party for said client
6 and said server;

7 computer code coupled to said server operable to initiate a key management
8 session by said server with said client.

1 19. The system as described in claim 18 wherein said computer code operable to
2 initiate a key management session comprises computer code operable to generate a trigger
3 message at said server; and further comprising:

4 computer code coupled to said server operable to generate a nonce at said server;
5 computer code coupled to said server operable to convey said trigger message and said
6 nonce to said client.

1 20. The system as described in claim 19 and further comprising:

2 computer code coupled to said client operable to generate a response message to
3 said trigger message;

4 computer code coupled to said client operable to convey said response message
5 and a returned_nonce to said server.

1 21. The system as described in claim 20 and further comprising:

2 computer code coupled to said server operable to confirm the value of said
3 returned_nonce at said server.